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Rear Admiral J. A. Scott
 Commanding Officer
 U. S. Navy Ships Parts Control Center
 Mechanicsburg, Pennsylvania 17055

~~AGC 2385~~
 AGC 00238

Dear Admiral Scott:

As part of our review of the negotiation of contract prices under the provisions of Public Law 87-653, we have examined into the price proposed and negotiated for firm fixed-price contract N00104-68-C-3434 awarded to RCA Corporation, Electromagnetic and Aviation Systems Division, Van Nuys, California, by the U. S. Navy Ships Parts Control Center (SPCC). The contract, originally issued as a letter contract in January 1968, was definitized on June 19, 1968, and provided for the production of 40,200 fuze monitors, MK 25, Mod 0, at a total price of \$1,002,990.

Our examination was primarily concerned with the reasonableness of the price negotiated in relation to cost or pricing data available at the date of contract negotiations and the adequacy of Government technical and audit evaluations of the contractor's cost proposal.

The results of our review show that the proposed contract price was \$46,500 higher than indicated by the most current cost information available at the time of contract negotiations. This resulted because the contractor did not update the cost proposal prior to negotiations to reflect the most current production data experienced under the letter contract. We also found that the reviews of the contractor's cost proposal by Government representatives were not performed in sufficient depth to identify the most current, complete, and accurate cost information available at the time of contract negotiations.

These matters are discussed in greater detail as follows.

BACKGROUND

Contract -3434 was the third of five contracts awarded to RCA for the MK 25, Mod 0, fuze monitor during the period January 1965

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through June 1969. The initial two contracts were awarded by the Harry Diamond Laboratories and included the production of 117,900 units, all of which were delivered prior to the negotiation of contract -3434.

Letter contract -3434, dated January 11, 1968, called for the production of 27,200 fuze monitors. On February 8, 1968, RCA submitted a detailed price proposal amounting to \$715,654. The proposed price was reduced to \$694,960 which was the estimated price established for the letter contract. RCA officials advised us that the net proposed price resulted from a lump-sum reduction, most of which was in the area of direct labor costs.

The Defense Contract Audit Agency (DCAA) made a preaward audit and the Defense Contract Administration Services (DCAS) District performed a technical evaluation of the cost proposal. On March 1, 1968, the contracting officer exercised a contract option increasing the quantity from 27,200 to 40,200 units; however, the contractor was not requested to submit a revised proposal for the new quantity.

Contract negotiations took place during the period May 24, 1968, through June 11, 1968. As of May 23, 1968, 13,600 units, or 34 percent of the units to be provided under the contract, had been delivered. During negotiations the contracting officer requested supplementary information from the DCAS price analyst on the actual unit cost of the items produced under the letter contract. The price analyst reported that the unit costs could not be readily determined from the contractor's records and that the recommendations of the original proposal evaluations were still valid.

Negotiations were conducted on the basis of the proposed unit price of \$25.55 for 27,200 units. A reduction of \$0.60 per unit was agreed upon resulting in a negotiated unit price of \$24.95, or a total price of \$1,002,990. RCA executed a Certificate of Current Cost or Pricing Data on June 11, 1968, and a defective pricing clause was incorporated into the contract.

RESULTS OF OUR EVALUATION

The results of our review of proposed costs, including an evaluation of the adequacy of the technical and audit reviews performed by Government representatives, are detailed as follows:

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Assembly labor costs

We found that the assembly labor costs negotiated under the contract were higher than indicated by available cost information prior to negotiations by about \$41,200 including applicable overhead and profit. This resulted primarily because the contractor did not update the cost proposal to reflect the most current assembly labor data available at the time of negotiations.

RCA proposed assembly labor of 1.0249 hours a unit, or \$101,186 for the total contract requirements. The proposed hours were based on a standard time of 0.6486 hours a unit which was adjusted upward to 0.9469 hours by a labor efficiency factor of 68.5 percent. The labor efficiency factor, known as the Labor Utilization Index (LUI) is a production control subsystem used by RCA to compare a worker's efficiency against cost estimate standards for all tasks of a production operation. As the work force becomes more efficient and non-productive time decreases, the LUI will increase.

Our review showed that the contractor did not use the most current and available LUI in its proposed assembly labor hours. At the time of negotiations in June 1968, the contractor had available labor efficiency data from completed production jobs under the preceding fuze monitor contract DAAG39-67-C-0033 (recorded under RCA job numbers 575 and 609), and from the letter contract -3434 (recorded under RCA job number 627). The contractor, however, utilized labor efficiency data available through February 8, 1968, which did not take into consideration the LUI experienced during production under the letter contract. A comparison of the negotiated assembly hours with data available at the time of negotiations is as follows:

<u>Proposed and negotiated</u> <u>LUI factor</u>	<u>Hours</u>	<u>Data available at</u> <u>the time of negotiations</u>			<u>Increase in</u> <u>contract price</u>
		<u>Job #</u>	<u>Weighted</u> <u>average LUI</u>	<u>Computed</u> <u>hours</u>	
68.5%	38,065	627	78.4%	33,165	\$35,600
		627) 609)	75.0%	34,765	23,900
		627) 609) 575)	70.7%	36,880	8,600

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We believe the LUI experienced under the letter contract (Job #627) would have been the most relevant and current cost data available at the time of negotiations.

The DCAS industrial engineer took no exception to the proposed labor hours based upon a review of the contractor's assembly operations, drawings, worksheets, and estimating procedures. DCAA did not review proposed hours since reliable labor hour data experienced on the preceding fuze contract was not available because the contract was not complete at the time of the preaward audit.

Neither DCAS nor DCAA evaluated the contractor's proposed LUI factor either at the time of their cost proposal reviews in February 1968 or at the time of the contracting officer's request on June 5, 1968, for supplementary information on the contractor's proposed costs. DCAA officials informed us that in late 1968 the resident office began to review LUI's in preaward audits of cost proposals where production experience was available.

An RCA official advised us that management recognized the higher LUI factor for assembly labor under the letter contract; however, management decided against revising the proposal to reflect the higher efficiency factor because the existing trend of decreasing production levels would lead to reduced labor efficiencies in the future. RCA did not disclose the more current LUI factors to the Government during contract negotiations nor were the reasons for management's decision not to revise the proposal disclosed to the contracting officer.

In addition to the proposed assembly hours, the contractor added a 5 percent factor for a break-in-production to cover a transition period between production on the preceding fuze monitor contract and letter contract -3434. The proposed factor was negotiated into the contract and amounted to 1,903 hours.

We found that the contractor had experienced the break-in-production prior to negotiations of contract -3434 in the amount of 1,125 hours, or 778 hours less than proposed. The labor hour difference amounted to about \$5,600 including overhead and profit. The break-in-production occurred in February 1968 at approximately the same time as the Government's cost proposal reviews; however, the experienced data was not reviewed by DCAA or DCAS.

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An RCA official agreed that the actual break-in-production labor hours charged to the contract was significantly lower than the negotiated amount; however, we were advised that additional hours were actually experienced but were charged to the wrong contract. The contractor could not furnish us any evidence to this effect.

In our opinion, the experienced break-in-production labor hours under letter contract -3434 should have been disclosed to the contracting officer during negotiations.

Test technician labor costs

We estimate that test technician labor costs negotiated under the contract were higher than indicated by cost information prior to negotiations by about \$6,700. Similarly to assembly labor, this resulted because the contractor did not update its proposal to reflect the most current and available labor hour data.

RCA proposed test technician labor of 0.2713 hours a unit, or \$38,849 for the total contract requirements. The proposed hours were based on a standard time of 0.2029 hours a unit adjusted to 0.2713 hours by an LUI factor of 74.8 percent.

Our review showed that the contractor was experiencing a higher LUI factor for test technician labor hours under the most current production jobs than the negotiated LUI factor. A comparison of the negotiated test technician hours with data available at the time of negotiations is as follows:

<u>Proposed and negotiated</u> <u>LUI factor</u>	<u>Hours</u>	<u>Data available at</u> <u>the time of negotiations</u>		<u>Increase in</u> <u>contract price</u>
		<u>Job #</u>	<u>Weighted</u> <u>average LUI</u>	
74.8%	10,906	627	79.6%	\$6,700
		627)		
		609)	79.5%	6,600
		627)		
		609)	74.8%	10,906
		575)		-0-

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We believe that the LUI experienced under the letter contract (Job #627) would have been the most relevant and current cost data available at the time of negotiations.

The DCAS industrial engineer took no exception to the proposed labor hours based on an evaluation of estimated time to perform tests of eight different components, subassemblies, and assemblies. DCAA did not review the proposed hours. Similarly to the condition previously identified for assembly hours, neither DCAS nor DCAA reviewed the contractor's proposed LUI factor or related production records to ascertain the most current labor efficiency factor available at the time of negotiations.

An RCA official advised us that the higher test technician LUI factor was not disclosed to the contracting officer during negotiations for the same reason as was cited for assembly labor.

Production engineering labor costs

In consideration of Defense Procurement Circular No. 77 regarding the "setoff" principles of understated cost or pricing data, we estimate that the contractor's proposed production engineering labor costs were lower than indicated by cost information available at negotiations by about \$1,400 including applicable overhead and profit.

The contractor proposed a production engineering labor rate of \$6.03 an hour although the approved bid rate was \$6.30 an hour. The cost proposal identified that all direct labor rates were based upon approved bid rates.

DCAA did not identify the error in the contractor's labor rate and subsequently the proposed labor rate was negotiated into the contract price.

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We believe that the contracting officer should consider the above findings, along with any additional information available, to determine whether the Government may be legally entitled to a price reduction with respect to contract -3434.

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We would appreciate being advised of actions taken or contemplated with regard to the matters discussed in this letter. Copies of this letter are being sent to the Commander, Defense Contract Administration Services Region, and the Regional Manager, Defense Contract Audit Agency, Los Angeles.

Sincerely yours,

H. L. KRIEGER
H. L. KRIEGER
Regional Manager

cc: Commander
Defense Contract Administration
Services Region, Los Angeles

Regional Manager
Defense Contract Audit Agency,
Los Angeles

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